

Replacement Instructions

hp StorageWorks Power Supply/Blower

Modular Smart Array

These instructions specifically pertain to the MSA1000 product family. The part may also be used in other HP products. Please refer to documentation for your specific product for detailed replacement instructions.



If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at:

<http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at:

http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

The information contained on these replacement instructions is subject to change without notice. The only warranty for this replacement product is as noted above. Nothing in these replacement instructions should be construed as constituting an additional warranty. The information provided in these replacement instructions is provided "AS IS" and HP is not liable for technical or editorial errors or omissions contained herein.

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Power Supply/Blower Replacement Instructions

First Edition (April 2004)

Part Number: EK-CSRPS-AA. A01



EK- CSRPS - AA. A01

About this document

This document describes the procedure for replacing the power supply/blower assembly used in the Modular Smart Array (MSA) products.

Getting help

If you need assistance replacing the power supply/blower, go to the HP support web site:

<http://www.hp.com/cgi-bin/hpsupport/index.pl>

Before you begin

- Make sure you have a replacement part available before removing the failed component. Removing a power supply/blower impacts cooling within the enclosure.



Caution: You have only 7 minutes to complete the replacement procedure or the enclosure may shut down due to overheating. Ensure that you reinstall a power supply within this time period.

- If you would like to have a copy of the MSA User Guide available for reference, you can download it from the following web page:

<http://h18006.www1.hp.com/storage/arraysystems.html>



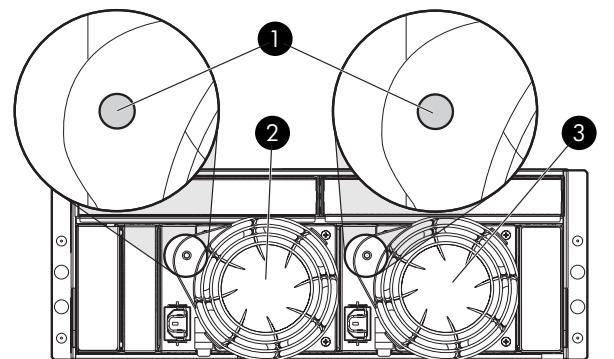
Caution: Parts can be damaged by electrostatic discharge. Use proper anti-static protection. Refer to the documentation that shipped with your system for additional information.

Verifying power supply/blower failure

The power supply and blower are separately replaceable components. Before replacing the power supply or blower, use the following methods to verify the component failure:

- Check the power supply status LED (❶, Figure 1). If the LED is off, it indicates a power supply or blower failure.

Figure 1: Power supply/blower status LED



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- ❶ Status LEDs
- ❷ Power supply/blower 1
- ❸ Power supply/blower 2

Using the controller LCD panel to identify the failed power supply/blower

On the front of the MSA, use the controller display buttons to scroll through the messages displayed on the controller LCD panel and locate the following message:

409 STORAGE BOX #<n> POWER SUPPLY FAILED

The <n> value in the message identifies which enclosure has the failed power supply.

- Box 1- MSA enclosure
- Box 2 - Disk enclosure attached to Port A of the MSA
- Box 3 - Disk enclosure attached to Port B of the MSA

Removing a blower

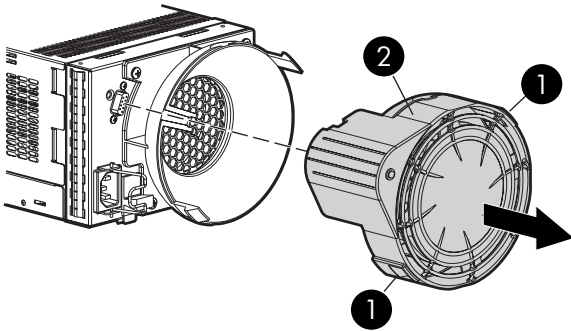
It is not necessary to remove the power supply to replace a failed blower.



WARNING: Keep your fingers away from the blower blades until the motor stops. The blower motor does not stop immediately when the blower is removed.

Push in on the two port-colored mounting tabs (❶, Figure 2), and pull the blower (❷) away from the power supply.

Figure 2: Removing a blower



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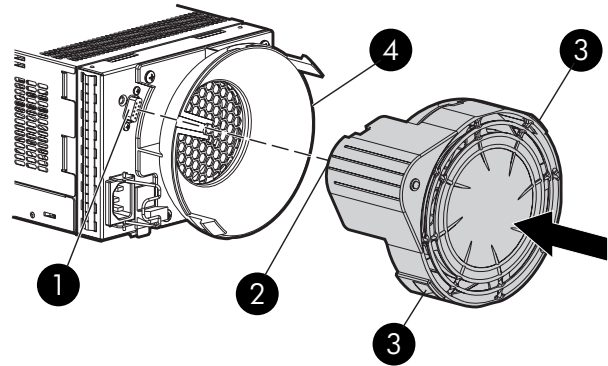
Installing a blower



Caution: Pressing on the center section of the blower can damage the blades or the housing. Only press on the outer edge of the blower when installing it.

1. Align the blower guide post (❷, Figure 3) with the mounting hole next to the power supply connector (❶).
2. Slide the blower onto the power supply (❸) until the mounting tabs (❹) snap into place.

Figure 3: Installing a blower



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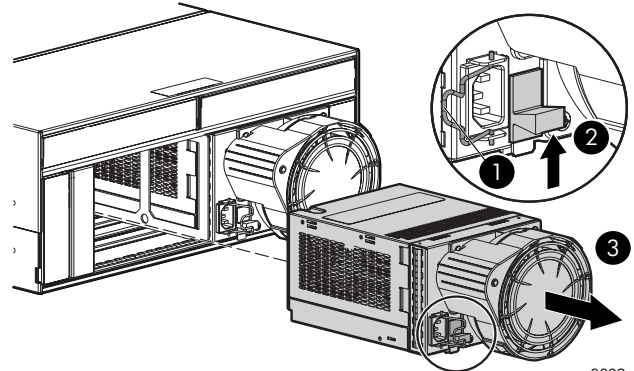
Removing a power supply



Caution: When a power supply is removed, the enclosure could shut down due to overheating within seven minutes unless the power supply is replaced.

1. Disengage the power cord lock (❶, Figure 4) and disconnect the power cord from the power supply.

Figure 4: Removing a power supply



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Caution: When removing the left power supply, ensure that the cord lock on the right power supply is engaged. This will ensure that the right power supply is not inadvertently disconnected.

2. Lift up on the port-colored module latch (❷), then grasp the blower (❸) and pull the power supply out of the enclosure.

Note: A replacement power supply does not include a blower.

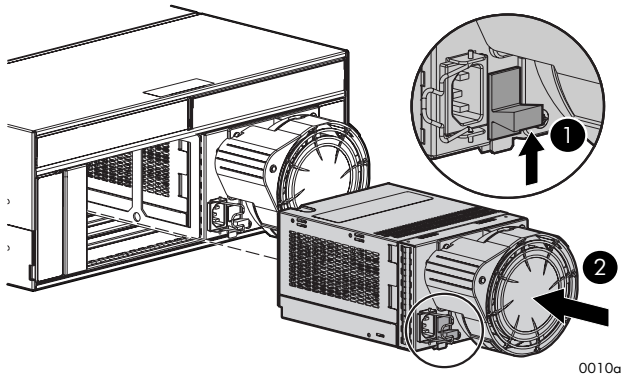
3. Remove the blower from the defective power supply and install it on the replacement power supply.

See other side

Installing a power supply

1. Lift up on the module latch (❶, Figure 5) and slide the power supply into the enclosure until it is fully seated.

Figure 5: Installing a power supply



2. Connect the power cord to the power supply and engage the cord lock.

Verifying proper operation

After replacing the power supply or blower, verify that the component is operating normally using the following methods:

- Make sure the blower begins operating immediately.
- The status LED should be On.
- Controller LCD panel should no longer indicate a power supply/blower failure.

Returning the failed component

Please follow the return instructions provided with the new component.